Increase of the Resistance of Animals to the Effect of Ionizing Radiation as a Result of Previous X-Ray Treatment

S/020/60/130/06/050/059
B011/B017

body-weight; IV. changes of the characteristic values of the peripheral blood. The following results were obtained: I. A protective effect is achieved by previous irradiation with doses of 50-250 r a fortnight before the second irradiation (Table 1). The maximum protective effect was achieved by a dose of 150 r of the first irradiation (Fig 1). Using 800 r in the second irradiation no protective effect could be achieved. A previous irradiation for 4 times with 50 r at intervals of 1 week produced no protective effect. II. In all cases of an effective protective effect of the first irradiation, the average lifetime of the test animals was somewhat longer than that of the control. III. and IV. No protective effect could be observed. Therefore, the type of protective effect due to previous irradiation differs from the effect produced by chemical protective agents (carbon monoxide, sulfurous compounds, narcotics). In the latter case also a rapid restoration of the body-weight and of the system of blood formation takes place. Among the hypotheses concerning the nature of the protective effect of previous irradiation the authors regard two of them as being the most probable:

Card 2/3

Increase of the Resistance of Animals to the Effect of Ionizing Radiation as a Result of Previous X-Ray Treatment

S/020/60/130/06/050/059
B011/B017

1) The protective effect is perhaps connected with the increase of the regeneration processes in the previously irradiated organism. 2) It may also be assumed that the protective effect is caused by the production of antibodies against the products of protein decomposition by the organism. At present, sufficient proofs for this or that hypothesis are lacking. However, they do not exclude each other. They may be only two sides of an adaptation reaction of the organism to ionizing radiation. The increase in the radiation resistance has also been found in plants and bacteria. At present, it is still difficult to find out whether this phenomenon is based on a common rule. There are 1 figure, 1 table, and 22 references, 6 of which are Soviet.

ASSOCIATION: Institut genetiki Akademii nauk SSSR (Institute of Genetics of the Academy of Sciences, USSR)

SUBMITTED: November 26, 1959

Card 3/3

21.6300 1138, 1565

20744
S/020/61/137/002/018/020
B103/B215

AUTHORS: Nuzhdin, N.I., Corresponding Member AS USSR, Pomerantseva, M.D. and Kuznetsova, N.N.

TITLE: Comparison of single and fractional action of fast neutrons on the testes of mice.

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 2, 1961, 438 - 440

TEXT: The authors compare the biological action of single and fractional treatment with fast neutrons on the testes of mice. Data published on this problem differ considerably. Above all, the authors studied the total damage caused by fractional treatment. Changes in weight and in the histological aspects of the testes characterized the degree of damage. Fast neutrons were produced by a 100-kw nuclear reactor. The application of a radiation dose of 100 rad was: a) single and total, b) divided into four parts with a total of 25 rad each per day. The animals were killed between the 2nd and 70th day after irradiation. Their testes were fixed with Zenker's liquid as modified by Maksimov [Abstracter's note: not explained in the text], colored, and microscopically studied. Histolo-

Card 1/4

gical sections were made at different moments after irradiation, on the basis of the types of germinal epithelium cells found in different stages of gametogenesis (method by L.C. Fogg, R.F. Cowing, Cancer Res., 11, 23, 1951, Ref. 4). The authors supplemented these methods by classifying the system into three stages. All cells of the germinal epithelium were divided into five groups: spermatogonia, prespermatocytes, spermatocytes, spermatids, and sperms. Table 1 shows the effect of dividing the 100-rad dose into four fractional doses on the change in the weight of the testis. Hence the authors conclude that the latter is considerably reduced by single and fractional irradiation, i.e., mainly on the 35th day after irradiation. Fast neutrons are 5-6 times as effective as X-rays. The degree of weight reduction is constant regardless whether the 100-rad dose os applied totally or in four portions of 25 rad each. On the 70th day after irradiation the weight of the testes had not been restored. The intensity of regeneration was equal in both experimental groups. As to the spleen, the case was different since its loss in weight was lower with fractional radiation doses (Table 1) and X-rays. Germ cells, starting with the youngest (spermatogonia), gradually disappear under the action of fast neutrons. At a dose of 100 r, spermatic ducts were found to be not completely empty,

as destroyed mature cells were replaced by younger ones. Also in this case, the biological effects of single and fractional doses were practically equal. The authors state that the action of fast neutrons is not reduced by fractional doses. They thank B.M. Isayev, Yu.I. Bregadze and V.A. Kvasov for valuable advice. There are 2 figures, 1 table and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English language publication reads as follows: G.J. Neary, R.J. Munson, R.H. Mole, Chronic Radiation Hazards, London, Paris, N.Y., Los Angeles, 1957.

ASSOCIATION: Institut genetiki Akademii nauk SSSR (Institute of Genetics, Academy of Sciences USSR)

SUBMITTED: December 10, 1960

1. Орган	4 Контроль			Доза	2			7		
	5 вес				5 вес			5 вес		
	мг 6	% от веса тела 7	число животных 9	10	мг 6	% от веса тела 7	число животных 9	мг 6	% от веса тела 7	число животных 9
2. Семенники	191	0,59	10	100 rad	179	0,64	8	156	0,54	8
				25 rad×4	153	0,66	8	151	0,52	6
3. Селезенка	123	0,37	10	100 rad	58	0,21	8	93	0,32	8
				25 rad×4	73	0,31	7	117	0,40	6

Card 3/4

42689

27.1220

S/747/62/000/000/010/025
D268/D307

AUTHORS: Nuzhdin, N. I., Shapiro, N. I., Pomerantseva, M. D. and Kuznetsova, N. N.

TITLE: A comparative study of the effectiveness of single and fractionated x ray irradiation of testes in mice

SOURCE: Radiatsionnaya genetika; sbornik rabot. Otd. biol. nauk AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 115-132

TEXT: To determine the comparative effectiveness of single and fractionated doses of x rays on testes and its relationship to dose size and the degree of fractionation, 3 month-old male mice were wholebody irradiated at 100 r (single dose; 4 x 26 r at 1-day intervals) and 400 r (single dose 2 x 200 r at 4-day intervals; 4 x 100 r at 2-day intervals; 65.5 r for 6 days and 40 r for 10 days). Testes were also locally irradiated at 1,600 r (single dose; 4 x 400 r at 2-day and at 4-5-day intervals). Spleen, thyroid gland, and leucocytes were also studied to determine the specific reaction of gonads to fractionation. In the 3 series, 491, 111, and 49 ani-

Card 1/2

A comparative study ... S/747/62/000/000/010/025
D268/D307

mals were studied respectively and histological examinations were made of 528 testes. Results showed that cumulative doses of 100 and 400 r caused virtually the same degree of injury to testes whether given singly or fractionated. The somewhat earlier reduction in testes weight and impairment of the germinal epithelium cells followed by more rapid regeneration with a fractionated dose of 400 r was due to the time factor. At 1,600 r, however, fractionation reduced injury, showing that the effects of fractionation are influenced by cumulative dose size. At a fractionated dose of 400 r, thyroid gland, spleen and leucocytes suffered less injury than with a single dose. There are 6 figures and 2 tables.

ASSOCIATION: Institut Genetiki AN SSSR (Institute of Genetics AS USSR) and Institut biologicheskoy fiziki AN SSSR, Moskva (Institute of Biological Physics AS USSR, Moscow)

Card 2/2

S/020/62/143/003/028/029
B144/B101

AUTHORS: Nuzhdin, N. I., Corresponding Member AS USSR, Kuznetsova, N. N., and Ramayya, L. K.

TITLE: Effect of x-ray irradiation of pregnant animals on variations in the peripheral blood of their progeny

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 3, 1962, 717-720

TEXT: The postnatal effect of a single intrauterine x-ray irradiation of 200 r at different embryonal periods was studied in mice by complete blood counts. (1) Hemoglobin quantity in newborn mice was most reduced after irradiation on the 17th day of intrauterine life (i. u. l.) (R = 8.6), but was soon restored to normal values; in 45-day old mice, irradiation on the 13th day of i. u. l. produced a significant reduction (R = 7.0) in spite of almost normal values at their birth. (2) Erythrocyte numbers varied consistently with the hemoglobin quantity. (3) Reticulocyte numbers were temporarily reduced in newborn animals irradiated on the 13th - 19th day of i. u. l. (R = 3.7 - 5.3). (4) The white blood count of newborn animals revealed no significant

Card 1/2

Effect of x-ray irradiation of ... S/020/62/143/003/028/029
B144/B101

variations. Myelopoiesis was not inhibited. In 45-day old mice leucocyte numbers, neutrophils as well as lymphocytes, were significantly reduced after irradiation on the 12th day of i. u. l. (R = 3.1); whereas irradiation 1 day later affected only the number of neutrophils and reduction approximated significance (R = 2.5). Thus, the maximum effect on the red blood of newborn mice was detected after irradiation on the 17th day of i. u. l.; this is probably the most important period for bone marrow formation. Development of leucopenia and anemia in 45-day old mice irradiated on the 12th and 13th day of i. u. l. may be due to destruction of mesenchyme rudiments of blood-forming tissues. There are 4 tables and 7 Soviet references.

ASSOCIATION: Institut genetiki Akademii nauk SSSR (Institute of Genetics of the Academy of Sciences USSR)

SUBMITTED: December 11, 1961

Card 2/2

NUZHDIN, N.I.; KUZNETSOVA, N.N.

Effect of X rays at different periods of embryonic development on the testicles of pubescent mice. Dokl.AN SSSR 145 no.6:1393-1395 Ag '62. (MIRA 15:8)

1. Institut genetiki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Nuzhdin).
(X RAYS—PHYSIOLOGICAL EFFECT) (TESTICLE)

KUZNETSOVA, N.N.

Testicular lesions in mature mice as a result of a single and fractional irradiation during the period the period of embryonal development. Zhur.ob.biol. 24 no.3:221-225 My-Je '63. (MIRA 16:8)

1. Institute of Genetics, Academy of Science of the U.S.S.R., Moscow.

(X-RAYS—PHYSIOLOGICAL EEFECT) (TESTICLE)

IL'INA, G.V.; KUZNETSOVA, N.N.; RYDKIY, S.G.

Disorders in plant metabolism caused by seed treatment with radioactive substances. Nauch. dokl. vys. shkoly; biol. nauki no.1:92-95 '64. (MIRA 17:4)

1. Rekomendovana laboratoriyey radiobiologii Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

ACCESSION NR: AP4015100 S/0205/64/004/001/0150/0156

AUTHOR: Il'ina, G. V.; Kuznetsova, N. N.; Ryadkiy, S. G.

TITLE: Effect of wheat seed irradiation on plant metabolism

SOURCE: Radiobiologiya, v. 4, no. 1, 1964, 150-156

TOPIC TAGS: irradiated wheat seed, carbohydrate metabolism change, nitrogen level, 1000 r gamma-irradiation dose, nutritive condition, radiation damage control, soluble carbohydrate, monosaccharose, saccharose, nitrogen nonprotein fraction, phosphorus, potassium, sulfur

ABSTRACT: This study compares carbohydrate metabolism in wheat grown from irradiated and non-irradiated seeds to find a means of eliminating harmful radiation effects in the plant. Experimental and control groups of winter wheat seeds (Moskovska) were soaked in distilled water for 20 hrs and the experimental group was gamma-irradiated (GUBE-800 unit, 500 r/min, focal length 18 cm) with a single 1000 r dose. Experimental and control seeds were grown under different nutritive conditions with varying amounts of phosphorus, potassium,

Card 1/3

ACCESSION NR: AP4015100

and sulfur added to the standard nutritive mixture. Plants were investigated at different growth stages to determine the levels of monosaccharoses, saccharoses, and nitrogen in leaves, stems, and spikes. Carbohydrate metabolism changes in wheat grown from irradiated seeds in a standard nutritive mixture can be expressed as shifts in fraction ratios between various forms of soluble carbohydrates, becoming more marked with growth of plant. The monosaccharose fractions increase and the saccharose fractions decrease. The nonprotein nitrogen fraction increases the total nitrogen level and the protein fraction is decreased. The degree of ratio shift depends on nutritive conditions. Nutritive mixtures with increased levels of phosphorus, potassium, or sulfur intensify plant synthesis and thereby significantly reduce radiation effects. In future investigations, the role of nutritive conditions in carbohydrate metabolism of plants grown from irradiated seeds can be considered as a factor in eliminating damage caused by large radiation doses or as a means of producing maximum beneficial effect with small radiation doses. Orig. art. has: 4 figures.

Card 2/3

ACCESSION NR: AP4015100

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, biologo-pochvennyy fakul'tet (Moscow State University, Biology-Soil Department)

SUBMITTED: 21Nov62 DATE ACQ: 12Mar64 ENCL: 00

SUB CODE: LS NR REF SOV: 011 OTHER: 000

Card 3/3

NUZHDIN, N.I.; KUZNETSOVA, N.N.

Radiosensitivity of the lymphocytes of the peripheral blood in vitro in animals belonging to various genotypes. Dokl. AN SSSR 159 no.4:923-925 D '64 (MIRA 18:1)

1. Institut genetiki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Nuzhdin).

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928220012-5"

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928220012-5"

L 5045-66 EWT(m)

ACC NR: AT5024247 SOURCE CODE: UR/2670/65/000/032/0136/0146

AUTHOR: Nuzhdin, N. I. (Corresponding member AN SSSR); Kuznetsova, N.N.

ORG: Institute of Genetics, Academy of Sciences, SSSR (Institut genetiki, Akademiya nauk SSSR)

TITLE: In vitro and in vivo radiosensitivity of peripheral blood constituents for animals of different genotypes

SOURCE: AN SSSR. Institut genetiki. Trudy, no. 32, 1965. Deystviye ioniziruyushchikh izlucheniy na rastitel'nyy i zhivotnyy organizmy (Effect of ionizing radiation on plant and animal organisms), 136-146

TOPIC TAGS: radiation biologic effect, radioresistance, mouse, leukocyte, lymphocyte, peripheral blood

ABSTRACT: It is demonstrated that the number of leukocytes in the peripheral blood of mice under normal conditions can be used to determine their radioresistance. However, no connection was established between red blood indices and the radioresistance of animals. Experiments showed that surviving Kryukowskaya mice had more leukocytes prior to irradiation than the animals which died. Leukocytes in mice of the BALB/c strain were more severely affected by irradiation than those in mice of the $CC_{57}Br$ strain (see Fig. 1). These differences increased with a decrease in radiation dose.

Card 1/3 UDC: 577.391

L 5045-66

ACC NR: AT5024247

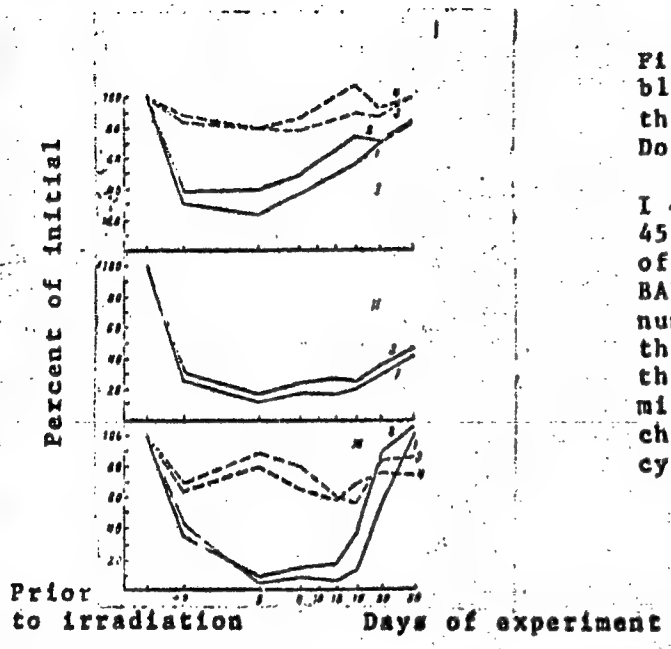


Fig. 1. Reaction of peripheral blood to irradiation in mice of the $CC_{57}Br$ and BALB/c strains. Doses:

I - 200 rad; II - 300 rad; III - 450 rad; 1 - change in the number of leukocytes in mice of the BALB/c strain; 2 - change in the number of leukocytes in mice of the $CC_{57}Br$ strain; 3 - change in the number of erythrocytes for mice of the BALB/c strain; 4 - change in the number of erythrocytes for mice of the $CC_{57}Br$ strain.

Card 2/3

L 5045-66

ACC NR: AT5024247

Luminescent microscopy was used to detect differences in the radiosensitivity of lymphocytes of the peripheral blood in vitro in different species of animals and man. As a result of this study, the following sequence was established (in order of decreasing radiosensitivity): rabbit > man/rat > mouse > guinea pig. This arrangement by radiosensitivity of lymphocytes in vitro does not coincide with that by $LD_{50/30}$. Statistically reliable sex-dependent differences in the radiosensitivity of lymphocytes in vitro were not observed. Individual differences in the radiosensitivity of lymphocytes in vitro of mice were not connected with their death after irradiation with a near-lethal dose. Orig. art. has: 3 figures and 8 tables. [JS]

SUB CODE: LS/ SUBM DATE: none/ ORIG REF: 022/ OTH REF: 004

Card 3/3

L 8239-66 EWT(m)

ACC NR: AT5024248 SOURCE CODE: UR/2670/65/000/032/0147/0161

AUTHOR: Nuzhdin, N. I. (Corresponding member AN SSSR); Kuznetsova, N. N.

ORG: Institute of Genetics, Academy of Sciences USSR (Institut genetiki, Akademiya nauk SSSR)

TITLE: Damage to the gonads of male mice developed from irradiated embryos

SOURCE: AN SSSR. Institut genetiki. Trudy, no. 32, 1965. Deystviye ioniziruyushchikh izlucheniy na rastitel'nyy i zhivotnyy organizmy (Effect of ionizing radiation on plant and animal organisms), 147-161.

TOPIC TAGS: radiation biologic effect, radiation injury, animal physiology, biologic reproduction, mouse, spermatogenesis, relative biologic efficiency

ABSTRACT: Detailed consideration is given to the influence of x-ray and neutron irradiation of animal embryos in different stages of development on their sexual organs when they mature. The effects of both types of ionizing radiation in this respect are compared, restorative processes in the testes are studied, and the effects of single and fractionated irradiation of embryos on the development of mature animals (mice) are contrasted. In this series of experiments, female

Card 1/3 UDC: 577.391

L 8239-66

ACC NR: AT5024248

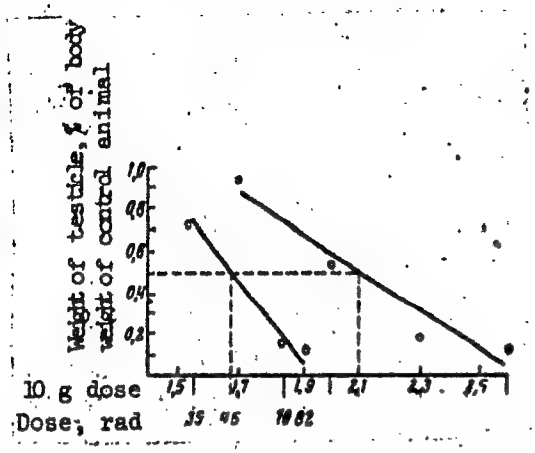


Fig. 1. Effect of fast neutron and x-ray irradiation of mouse embryos on weight differences in the testes of mature animals.

white mice in their first pregnancy were irradiated with x-rays in doses of 20, 50, 100, 200, and 400 rad (with dose powers from 3.7—23 rad/min) and with neutrons in doses of 35, 70, and 82 rad. Male offspring of irradiated mice were killed at 1, 1.5, 3, and 6 months of age. Experimental results showed that the radiosensitivity of mouse testes during embryonic development considerably exceeds the sensitivity of the gonads in adult animals. The most radiosensitive were testes of mice

Card 2/3

L 8239-66

ACC NR: AT5024248

irradiated on the 15th--17th day of embryonic development. Maximum damage to the testes was observed in animals developed from embryos irradiated on the 16th day of embryonic development. This is due to the intense differentiation processes occurring in the testes in just this period. The lowest x-ray doses causing injuries in the testes of animals irradiated in this critical period were 50--100 rad. With 50 rad these injuries were observed in month-old mice, and by 1 1/2 months spermatogenesis was restored. With a dose of 100 rad, spermatogenesis was restored only in the 6th month, and the weight of the testes continued at a decreased level. X-ray doses of 200 and 400 rad caused irreversible changes in mouse testes. Animals irradiated with these doses in the critical embryonic period were sterile. The RBE of fast neutrons for testes during the period of embryonic development, as compared with x-rays, was 2--2.5. In the case of both x-ray and neutron irradiation, the weight of one testicle decreases proportionally to the logarithm of the dose (see Fig. 1). In the case of fractionated irradiation, injuries to the testes in their critical embryonic period were cumulative. Orig. art. has: 8 tables and 11 figures. [JS]

SUB CODE: LS/ SUBM DATE: [illegible] ORIG REF: 009/ OTH REF: 023

Card 3/3

ACC NR: AP7004808

SOURCE CODE: UR/0413/67/000/001/0146/0146

INVENTOR: Ageykin, D. I.; Kuznetsova, N. N.; Knopov, Yu. T.

ORG: None

TITLE: A signalling pickup. Class 74, No. 190236 (announced by the Institute of Automation and Telemechanics [Technical Cybernetics] [Institut avtomatiki i telemekhaniki (tekhnicheskoy kibernetiki)])

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 146

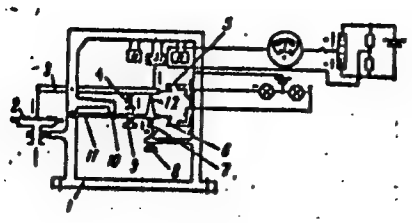
TOPIC TAGS: signal element, remote control, electric equipment

ABSTRACT: This Author's Certificate introduces: 1. A signalling pickup which contains a sensitive element, lever transmission and force compensation unit. To provide a wider range of applications, the unit is equipped with two adjustable-tension springs and a double null indicator. The output circuit of the force compensation unit is connected to a secondary measuring device. 2. A modification of this pickup with independent control of the null indicators. One of the springs is connected to an auxiliary lever which is pressed against a stop by a second spring fastened to the pickup frame. The power lever acts against a lug on the auxiliary lever to move it away from the stop.

Card 1/2

UDC: 681.2.083.8:531.787.9

ACC NR: AP7004808



1--pickup frame; 2--sensitive element; 3--power lever; 4--spring for the lower setting; 5--contacts for the lower setting; 6--contacts for the upper setting; 7--springs for the upper setting; 8--adjustment screw for the upper setting; 9--adjustment screw for the lower setting; 10--stop; 11--auxiliary lever; 12--lug on the auxiliary lever

SUB CODE: 09, 13/ SUBM DATE: 02Oct65

L 23435-66 FSS-2/EWT(1)/EEC(k)-2/EWA(d) SCTB TT/DD/GW

ACC NR: AP6012837 SOURCE CODE: UR/0293/66/004/002/0320/0323

AUTHOR: [illegible], G. V.; Kuznetsova, N. N.; Rydkiy, S. G.; Vysotskiy, V. G.

ORG: none

TITLE: The effect of spaceflight factors on wheat seeds and plants grown from them

2

56
B

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 2, 1966, 320-323

TOPIC TAGS: space biology, radiation effect, germination, wheat, carbohydrate metabolism, protein metabolism, plant physiology

ABSTRACT: A study was made of the growth and development of wheat plants grown from seeds exposed to spaceflight factors on the Vostok-5 and Vostok-6 flights. Experimental and control batches of wheat seeds ("Krasnozerna" variety) were cultivated in fertilized soil under controlled humidity conditions. The energy of germination of seeds was determined and biochemical analysis was made of the plants in the following growth phases: seedling stage, tillering stage, and late flowering stage. A slight tendency to depression of germination was observed in experimental seeds (10% fewer sprouts on the first day of counting). Study of plant growth and accumulation of dry mass showed no difference between experimental and control groups. Biochemical analysis of plants showed insignificant variations in the content of individual sugar fractions, and analogous changes in soluble carbohydrate content in both experimental and control seedlings. The similarity of changes in nitrogen content and in individ-

UDC: 581.057

2

L 23435-66

ACC NR: AP6012837

ual fractions of nitrogenous compounds in both groups also shows that spaceflight has no significant effect on biochemical processes in wheat plants. In addition, approximately the same amounts of starch and nitrogenous substances were observed in grains harvested from experimental and control plants. It was concluded that spaceflight factors do not influence the carbohydrate and protein metabolism of plants grown from exposed wheat seeds. It was also concluded that the amount of cosmic radiation included among the complex of Vostok-5 and Vostok-6 flight factors was insignificant for dry wheat seeds (dry wheat seeds are known to be more resistant to irradiation than moistened seeds). Orig. art. has: 4 tables. [JS]

SUB CODE: 06/ SUBM DATE: 13Apr64/ ORIG REF: 003/ ATD PRESS: 4235

Card 2/2

KUZNETSOVA, N.N.

31

Polymerization of methyl methacrylate. I. M. Tomsonz, N. N. Kuznetsova, E. A. Chintsova, and I. D. Berkhina. USSR 80,000, July 31, 1950. Methyl methacrylate is polymerized in the presence of an alk. casein soln. at pH above 8 to prevent agglomeration on the wall of the container. M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

USSR/Chemistry - Plastics and synthetic resins FD-959

Card 1/1 Pub. 50 - 2/19

Authors : Prof Vansheydt, A. A., Dr Chem Sci; Kuznetsova, N. N.

Title : Contemporary ideas in regard to the structure of phenol-formaldehyde resins

Periodical : Khim. prom., No 7, 387-94 (3-10), Oct-Nov 1954

Abstract : Review recent work on the subject on the basis of USSR and foreign publications. Forty eight references; 20 USSR, 9 since 1940.

Kuznetsova, N. N.

Category: USSR / Physical Chemistry - Surface phenomena. Adsorption. Chromatography. Ion exchange. B-13

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30218

Author : Samsonov G. V., Bresler S. Ye., Vansheydt A. A., Kuznetsova N. N., Lavrent'yeva S. F., Shesterikova M. P.

Inst : not given

Title : Sorption of Streptomycin by Carboxyphenol Resins

Orig Pub: Antibiotiki, 1956, 1, No 5, 42-46

Abstract: Trivalent cathions of streptomycin (Str^{3+}) are sorbed irreversibly at sulfocathionites while with purely carboxylic cathionites (KFU and KMT) absorption capacity for Str^{3+} amounts to only 38-22% of their capacity for simple inorganic cathions (Na^{+} and Ca^{2+}), evidently due to steric hindrances caused by excessively close distribution of carboxyl groups. It was found, in accord with the theoretical assumption, that the readily swelling, capable of ion-exchange

Card : 1/2

Category: USSR / Physical Chemistry - Surface phenomena. Adsorption. Chromatography. Ion exchange B-13

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30218

throughout their bulk, resins of the mixed carboxy-phenol type (KRFFU, KRFU, Czechoslovak ROA resin), of strongly reduced general exchange capacity (phenolic OH groups do not participate in the exchange), exhibit considerably greater relative adsorption capacity for Str^{3+}. It is shown that the constant of Str^{3+} - Na^{+} exchange at carboxy-phenolic resins differs little from the constants at purely carboxylic resins.

Card : 2/2

Kuznetsova N.N.

VANSHEYDT, A.A.; KUZNETSOVA, N.N.

Investigating the mechanism of "hardening" of phenolformaldehyde resols. Zhur.prikl.khim. 30 no.12:1850-1858 D '57. (MIRA 11:1)

1.Institut vysokomolekulyarnykh soyedineniy AN SSSR.
(Phenol condensation products)

5(3)

SOV-80-32-4-29/47

AUTHORS: Vansheydt, A.A. and Kuznetsova, N.N.

TITLE: On the Polycondensation of Phenoxyacetic Acid With Formaldehyde and the Synthesis of a Weakly Acid Ionite Based on Them (O polikondensatsii fenoksiuksusnoy kisloty s formal'degidom i sinteze slabokislotnogo ionita na ikh osnove)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 4, pp 868-873 (USSR)

ABSTRACT: On the basis of some theoretical considerations, substantiated by analogies with phenolformaldehyde lacquer resins, the authors studied the reaction of polycondensation of phenoxyacetic acid with formaldehyde in the presence of mineral acids with an aim to produce resins with a higher resistance to alkalis and oxidizers. It has been found that this reaction takes place at a high rate when the solution of phenoxyacetic acid in the formalin is heated in the presence of hydrochloric acid. The reaction leads to the formation of fusible polymers, soluble in alkali hydroxide, with a molecular weight of 570 to 970, if the molar ratio of phenoxyacetic acid to formaldehyde is equal or more than unity. The analysis of the soluble resins shows that they, like lacquer resins, are mixtures

Card 1/2

SOV/80-32-4-29/47

On the Polycondensation of Phenoxyacetic Acid With Formaldehyde and the Synthesis of a Weakly Acid Ionite Based on Them

of polymers of the type $H[C_6H_3(OR)CH_2]_nC_6H_4OR$ (where R = $-CH_2COOH$), in which from 3 to 6 molecules of the phenoxyacid are interbonded by methylene bonds. When soluble resins are heated with the paraform in the presence of sulfuric acid, three-dimensional polymers are formed which are infusible and insoluble, but swelling in alkali hydroxide, and possess the properties of weakly acid ionites with an exchange capacitance equal to 5.8 mg-equ/g. They are distinguished by a capacity of selective sorption of streptomycin out of a cultural liquid.
There are 2 tables and 4 references, 2 of which are Soviet, 1 American and 1 German.

SUBMITTED: April 14, 1958

Card 2/2

5(3) SOV/80-32-5-37/52

AUTHORS: Vansheydt, A.A., Kuznetsova, N.N., Kulikova, Z.I.

TITLE: On the Simultaneous Polycondensation of Phenoxyacetic Acid and n-Chlorophenol With Formaldehyde

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 5, pp 1142-1149 (USSR)

ABSTRACT: Ion exchange resins with a decreased content of carboxyl groups have been synthesized by simultaneous polycondensation of phenoxyacetic acid (POA) and formaldehyde with phenol and resorcin to attain a higher selectivity for large organic ions. The condensation takes place as a violent interaction of the mentioned substances. The less reactive n-chlorophenol was therefore used. The melting point of the soluble resins varies between 95 and 110°C, the molecular weight which has been determined by cryoscopy, from 620 to 710. It has been established that at a molar ratio CH_2O : POA = 0.8 the mean degree of polymerization is equal to 4. The soluble resins can be regarded as mixtures of polymerhomologs, the molecules of which consist on the average of 5 POA residues and chlorophenol. Hardening is effected by heating with paraform in the presence of 4% sulfuric acid to 120 - 140°C for 6 - 7 hours. The resins have a high exchange capacity for large organic ions. With a de-

Card 1/2

SOV/80-32-5-37/52

On the Simultaneous Polycondensation of Phenoxyacetic Acid and n-Chlorophenol With Formaldehyde

crease of the introduced paraform the coefficient of swelling increases from 2.5 to 14, but their yield and mechanical resistance decrease. The content of chlorine and OH-groups in the insoluble polymers shows that the initial polymer is not homogeneous. The three-dimensional polymer is formed from the linear polymer by the growth of the polymer which is then converted to the three-dimensional form when the degree of polymerization reaches 6 - 7, which corresponds to the presence of 7 - 8 aromatic links in the chains.
There are 4 tables and 3 references, 2 of which are Soviet and 1 English.

SUBMITTED: November 3, 1958

Card 2/2

BAGDASAROV, Yu.A.; GAYDUKOVA, V.S.; KUZNETSOVA, N.N.; SIDORENKO, G.A.

Find of lueshite in Siberian carbonatites. Dokl. AN SSSR 147 no.5:1168-1171 D '62. (MIRA 16:2)

1. Predstavleno akademikom D.I. Shcherbakovym.
(Siberia--Minerals) (Niobium compounds)

BALTINO, S.V.; [illegible]; [illegible]

New data on calciborite. Zap. Vses. min. ob-va 92 no.6:684-690 '63. (MIRA 16:3)

TARKHANOVA, G.A.; SIDORENKO, G.A.; KUZNETSOVA, N.N.

Concerning the new mineral-pravdite. Zap. Vses. min.-ob-va 93 no.1:106-110 '64 (MIRA 18:2)

ACCESSION NR: AP4041803 S/0080/64/037/007/1624/1626

AUTHOR: Kuznetsova, N. N.; Vansheydt, A. A./ Papukova, K. P./ Konyakova, T. N.

TITLE: The polycondensation of phenoxyethylsulfonic acid with formaldehyde and the synthesis of a strongly acid cationite based thereon

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 7, 1964, 1624-1626

TOPIC TAGS: phenoxyethylsulfonic acid, formaldehyde polycondensation, acid cationite, synthesis, heat stability, ion exchange capacity, mechanical strength

ABSTRACT: Beta-phenoxyethylsulfonic acid, synthesized by the condensation of sodium phenolate with dichlorethane and subsequent treatment of the phenoxychlorethane with aqueous sodium sulfite, was condensed with formaldehyde in aqueous solution even in the absence of catalyst to form a liquid resin which in subsequent heating formed a three-dimensional polymer

$$[C_6H_3(OR)CH_2]_n\left[\begin{matrix}C_6H_3(OR)CH_2\\ |\\ CH_2\end{matrix}\right]_m,$$

where $R=CH_2CH_2SO_3H$.

Card 1/2

ACCESSION NR: AP4041803

This cationite, containing SO_3H groups only on the aliphatic side chains and containing no phenolic hydroxyls, was more stable to aqueous alkaline solutions and oxidizing agents than ionites having phenolic hydroxyl groups. The dark red insoluble cationite has an irregular granular form, sufficient mechanical strength, and an exchange capacity of 4.2-4.3 mg. equiv/l. The optimum reactant ratio is 1:1 to obtain a resin with the maximum coefficient of swelling of 2.5; an excess of formaldehyde reduced this value to about 2. The cationite is stable to heating in water at 100C; its exchange capacity is reduced on heating in air from 100-150C due to the cleavage of the sulfo-group. The cationite is stable to alkali and 1N HNO_3 at room temperature and shows less loss in exchange capacity in 5N H_2SO_4, but is less stable than KU-2 resin in concentrated alkali. Orig. art. has: 2 tables, 2 figures, 1 equation and 1 formula.

ASSOCIATION: None

SUBMITTED: 20Aug62 ENCL: 00

SUB CODE: GC, OC NO REF SOV: 001 OTHER: 002

Card 2/2

where R = $-CH_2CH_2N(CH_3)_3$ Br. The chemical and thermal stabilities of

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928220012-5"

Card 3/3

KUZNETSOVA, N.N.; VANSHEIDT, A.A.; [illegible]NOVA, K.P.; KONTEVICH, T.N.

Polycondensation of phenoxybromoethene with formaldehyde and the synthesis of a strongly basic anion exchanger. Zhur. prikl. khim. 37 no.9:2016-2022 S '64.

(MIRA 17:10)

APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000928220012-5"

L 8139-66 EWT(m)/ETC/EWG(m) DS/RM

ACC NR: AP5025025 SOURCE CODE: UR/0286/65/000/016/0081/0081

AUTHORS: Kuznetsova, N. N.; Vansheydt, A. A.; Papukova, K. P. Kozyakova, T. N.

ORG: none

TITLE: Method for obtaining cation exchanger containing phosphonic groups. Class 39, No. 173935 [15] announced by Institute for High-Molecular Compounds, AN SSSR (Institut vysokomolekulyarnykh soyedineniy AN SSSR)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 81

TOPIC TAGS: cation exchanger, polymer, polyphosphonic resin, phosphorus organic compound

ABSTRACT: This Author Certificate presents a method for obtaining a cation exchanger (containing phosphonic groups) by polycondensation of substituted phosphonic acid with formaldehyde in a sulfuric acid medium, and then by consolidation of the resin-like product. To obtain a chemically and thermally stable sorbent, phenoxyethylphosphonic acid is used as the substituted phosphonic acid.

SUB CODE: OC/ SUBM DATE: 22May64

Card 1/1 UDC: 678.672'39'21 661.183.123.2.002.2

L 7884-66 EWT(m)/ETC/EWG(m) DS/RM

ACC NR: AP5025038 SOURCE CODE: UR/0286/65/000/016/0084/0084

AUTHORS: Kuznetsova, N. N.; Vansheydt, A. A.; Komyakova, T. N.

ORG: none

TITLE: Method for obtaining amphoteric ion exchange resins. Class 39, No. 173950

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 84

TOPIC TAGS: ion exchanger, ion exchange resin, polymer, condensation, polymerization

ABSTRACT: This Author Certificate presents a method for obtaining amphoteric ion exchange resins (containing carboxyl and weakly basic groups) by condensing an equimolar mixture of phenoxy-derivatives of organic acids and alkylphenoxyethyl derivative with formaldehyde or paraform. To increase the variety of phenoxy derivatives of organic acids, the phenoxy derivatives phenoxyethylsulfonic or phenoxyacetic acid are used, while dimethylphenoxyethylamine is employed as the alkylphenoxyethyl derivative.

SUB CODE: 07 / SUBM DATE: 26Jul62

Card 1/1 UDC: 661.183.123:678.83

L 26081-66 EWA(h)/EWT(1)/ETC(m)-6 WW

ACC NR: AM5027094 Monograph UR/ 77, 71 B+1

Ageykin, D. I.; Kostina, Ye. N.; Kuznetsova, N. N.

Regulation and control transducers; reference materials (Datchiki kontrolya i regulirovaniya; spravochnyye materialy) 2d ed., rev. and enl. Moscow, Izd-vo "Mashinostroyeniye," 1965. 928 p. illus., biblio. 19,000 copies printed.

TOPIC TAGS: computer engineering, automatic control, pressure transducer, temperature transducer, flowmeter, handbook

PURPOSE AND COVERAGE: This book is intended for engineering and technical personnel concerned with the development, application, and operation of transducers and other similar devices. It may also be useful to students in technical schools of higher education. The book deals with theoretical foundations of transducer construction, basic diagrams, and design-calculation formulas. It also offers practical recommendations for the selection of necessary parameters. The transducers developed by Soviet engineering organizations and enterprises are also discussed, as well as the better types of non-Soviet transducers. Technological data, such as displacement, level, pressure, consumption, flow rate, temperature, velocity, acceleration, and vibration parameters, are also given. A bibliography follows each section.

TABLE OF CONTENTS [abridged]:

Card 1/5 UDC: 681.2.08+621-50

L 26081-66

ACC NR: AM5027094

Section One

Linear-and-Angular Displacement and Power Pickups

Section Two

Compensation Pickups, Frequency, Pulse-Duration and Digital Output Transducers

Card 2/5

L 26081-66
ACC NR: AM5027094

3

Card 3/5

L 26081-66

ACC NR: AM5027094

2

Section Five
Pressure Transducers

Section Six
Flowmeters

Card 4/5

L 26081-66

ACC NR: AM5027094

Section Seven

Temperature Transmitters, and Relays

SUB CODE: 09/ SUBM DATE: 11May65/ ORIG REF: 190/ OTH REF: 038

Card 5/5

IL'INA, G.V.; KUZNETSOVA, N.N.; RYDKIY, S.G.

Effect of physiologically active compounds and ionizing radiation on the metabolism of wheat. Fiziol. rast. 12 no.3:424-431 My-Je '65. (MIRA 18:10)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta.

SAMSONOV, G.V.; BRESLER, S.Ye.; VANSHEYDT, A.A.; KUZNETSOVA, N.N.; LAVRENT'YEVA, S.F.; SHESTERIKOVA, M.P.

Sorption of streptomycin by carboxyphenol resins. Antibiotiki 1 no.5: 42-46 S-O '56. (MLRA 10:2)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR i Leningradskiy khimiko-farmatsevticheskiy institut.
(ION EXCHANGE RESINS,
sorption of streptomycin by carboxy-phenol resins (Rus))
(STREPTOMYCIN,
sorption by carboxy-phenol resins (Rus))

Dissertation: "Aging and Quality of Cheese Processed With the Use of Preparations of Abomasum Ferment and a Food Pepsin." Cand Tech Sci, Moscow Technological Inst of the Meat and Dairy Industry, 3 Jun 54. Vechernyaya Moskva, Moscow, 25 May 54.

SO: SUM 284, 26 Nov 1954

KARABASH, A.G.; FAYZULAYEV, Sh.I.; SLYUSARENKO, R.L.; SOTNIKOVA, N.P.; SMIRNOVA-AVERINA, N.I.; SAMSONOVA, Z.N.; KRAUZ, L.S.; MOROZOVA, G.G.; ROMANOVICH, L.S.; SMIRENKINA, I.I.; LIPATOVA, V.M.; SAZANOVA, S.K.; PUGACHEVA, L.I.; USACHEVA, V.P.; VORONOVA, Ye.F.; GORBACHEV, P.D.; KOSTAREVA, F.A.; KOSTERENKO, N.T.; YELOVATSKAYA, A.I.; KUZNETSOVA, N.N.

Spectrochemical analysis of pure metals for impurities. Fiz. sbor. no.4:556-562 '58. (MIRA 12:5)
(Spectrochemistry)

KUZNETSOVA, N.N.; KRAUZ, L.S.

Chemical-spectral method for determining impurities in metallic niobium. Zhur. anal. khim. 18 no.9:1090-1093 S '63. (MIRA 16:11)

[illegible], Yu.A., inzh.; [illegible], N.N., inzh.

Calculating the coolers for single-pipe systems of hot water heating with staggered cooling parts according to the experimental data of the All-Union Scientific Research Institute of Hydraulics and Sanitary Engineering. Sbor. rab. leningr. inzh-[illegible] [illegible] 1961. [illegible] 17:12)

GAVRILENKO, I.V., kand.tekhn.nauk; MATSUK, Yu.P., kand.tekhn.nauk; KUZNETSOVA, N.N., inzh.; BOROVOY, L.Ye., inzh.; Prinimali uchastiye: SAUSHKINA, L.V.; IVANOVA V.P.; CHEKANOVA, S.V.; TITOV, A.V.; DEMIN, I.V.

Conditioning of oil cakes. Masl.-zhir.prom. 30 no.2:24-28 F '64. (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov (for Gavrilenko, Matsuk, Kuznetsova, Saushkina, Ivanova). 2. Gosudarstvennyy proyektnyy institut "Giprozhir" (for Borovoy, Titov, Demin).

613. RADIOACTIVE PHOSPHORUS IN THE TREATMENT OF CAPILLARY ANGIOMATA (Russian text) - Kuznetsova N. P. Med. Inst. Irkutsk - TRUDY KAF. KOZH. I VENER. ZABOL. (Irkutsk) 1957, 2 (202-205)

Twenty-two patients (3 years of age or over) with capillary angiomata of the face (forehead, nose, upper lip, jaws) and one patient with trunk lesions were treated by applications of radioactive phosphorus for 8-10 days in a daily dose 300-450 r. for adults and 200-300 r. for children. Total dosage was 2,000-3,500 r. and was reduced in subsequent courses of treatment. The number of courses was 1-3 with 3-4-6 months' intervals. In general the patients tolerated the treatment well. In some cases a subpyrexial state was observed or burning and pruritus at the site of application was complained of. A reaction in the form of dry or wet epidermitis

613

occurred on the 10th-15th day. Leucopenia and diminished haemoglobin concentration were observed in 10 cases. The surface of the lesions became pale and a good cosmetic effect was obtained.

Mashkilleison Jr - Moscow (S)

KUZNETSOVA, N.P., assistent

Late results of the treatment of angiomas with radioactive phosphorus. Vest.derm.i ven. no.9:32-38 '61. (MIRA 15:5)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. M.S. Kaplun) Irkutskogo meditsinskogo instituta (dir. - prof. A.I. Nikitin).
(PHOSPHORUS—ISOTOPES) (ANGIOMA)

L 18870-63 EPF(c)/EWT(m)/BDS Pr-4 RM/WW/MAY/JXT(IJP)

ACCESSION NR: AP3006618 S/0076/63/037/009/2001/2006 59 58

AUTHOR: Kuznetsova, N. P.

TITLE: Physicochemical analyses of dinitro derivatives of pyrrole 7

SOURCE: Zh. fizicheskoy khimii, v. 37, no. 9, 1963, 2001-2006

TOPIC TAGS: 3,4-dinitro-n-methylpyrrole, polymorphic transition, monotropic transition, enantiotropic transition

ABSTRACT: The effect of substitutions in the one position of dinitro-derivatives of pyrrole upon the supercooling ability of these substances, the value of fusion temperatures, and the presence and type of polyether transformation was studied. Study was performed by thermo-differential and microstructural phase analyses in the temperature range from liquid nitrogen temperature to 300C. Author found that 3,4-dinitro-n-methylpyrrole does not posess polymorphic transformations. The compounds 3,4-dinitro-n-butylpyrrole, 3,4-dinitro-n-(Beta-hydroxyethyl)-pyrrole, 3,4-dinitro-n-(Beta-hydroxyethyl)-pyrrole acetate, and methyl 3,4-dinitro-n-pyrrole acetate can undergo a mono-

Card 1/2

L 18870-63

ACCESSION NR: AP3006618

tropic transition. Enantiotropic type of transition is observed in 3,4-dinitro-n-ethylpyrrole and 3,4-dinitro-1,2-dimethylpyrrole compounds. Polymorphic transitions were not observed in 3,4-dinitro-n-pyrrole acetate acid and in ethyl 3,4-dinitro-n-pyrroleacitic acid. Orig. art. has: 1 table and 10 figures.

ASSOCIATION: Akademiya nauk SSSR (Academy of Sciences, SSSR); Institut obshchey neorganicheskoy khimii im. N. S. Kurnakova (Institute of General Inorganic Chemistry)

SUBMITTED: 23Jul62 DATE ACQ: 30Sep63 ENCL: 00

SUB CODE: CH NO REF SOV: 003 OTHER: 001

Card 2/2

ALESHINA, F.; KABACHNIK, Ya.; KUZNETSOVA, N.; VASIL'YEVA, V.; BALASHOVA, M.; NEMCHINOVA, I.

Several results of an experimental study of budgets of workers' families. Biul.nauch.inform.: trud i zar. plata 3 no.12:24-48 '60. (MIRA 14:3)

(Home economics—Accounting)

VASIL'YEVA, V.; KUZNETSOVA, N.

Role of public consumption funds in improving the living standards of the Soviet people. Biul. nauch. inform.: trud i zar. plata 4 no.12:39-44 '61. (MIRA 15:1)

(Cost and standard of living)

KAPUSTIN, Ye.I., kand.ekon.nauk; LAVROV,V.V.; RYUMIN, S.M.; KONSTANTINOV, Yu.A.; PRAVDIN, D.T., kand.ekon.nauk; KIRILLOVA, N.I.; RIMASHEVSKAYA, N.M.; ANTROPOV, B.F.; RYABKOV, F.S.; POPOV, G.A.; DEM'YANOVA, V.A.; SMOLYAR, I.M.; ACHARKAN, V.A., kand. yurid.nauk; BRONER, D.L.; SHEPTUN, Ye.V.; KNYAZHEV, V.G.; ALESHINA, F.Yu., kand. ekon. nauk; KUZNETSOVA, N.P.; MARKOVICH, M.B.; BIBIK, L.F.; BUDARINA, V., red.; GRIGOR'YEVA, I., mladshiy red.; CHEPELEVA, O., tekhn. red.

[Public consumption funds and improving the welfare of the people in the U.S.S.R.]Obshchestvennye fondy i rost blagosostoianiia naroda v SSSR. Moskva, Sotsekgiz, 1962. 222 p. (MIRA 15:6)
(Cost and standard of living)

KUZNETSOVA, N.

Methodology for calculating the consumption of food products. Biul.-nauch. inform.: trud i zar. plata 5 no.1:45-50 '62. (MIRA 15:2)
(Home economics) (Food)

KUZNETSOVA, N. P.

CA

22

Problems of the genesis of natural bitumens and pyrrole compounds. I. The significance and methods for determining pyrrole derivatives of various degrees of complexity in bituminous formations. N. P. Kuznetsova. *Trudy Inst. Goryuchikh Iskopaemykh, Ser. Geneziza* 1, No. 1, 15-22(1939).—To det. the contents of the simplest pyrrole compds. in natural bitumens and to find means to transform them into more complex compds. of the same type it is imperative to develop general methods for the analysis of bituminous substances for their contents of pyrrole compds. of various degrees of complexity. K. investigated absorption spectra of the reaction products of various pyrrole compds. (pyrrole, indole, skatole, brucine, etc.) with *p*-dimethylaminobenzaldehyde and detd. the conditions for the appearance of these spectra. These spectra can be used for the differential analysis of natural bitumens for their contents of pyrrole compds. II. Are the pyrrole compounds in natural bitumens limited to the highly complex products of the decomposition of chlorophyll and hemoglobin? *Ibid.* 23-8.—Eleven specimens of petroleum from 10 oil fields of U. S. S. R. were exaud. for their contents of simplest pyrrole compds. A no. of specimens contained more simple derivs. than the highly complex products of the decompn. of chlorophyll and hemoglobin investigated by Treibs. No further confirmation of this conclusion and no explanation of the absorption spectra obtained by K. have been made. III. The special reaction of pyrroles with alkali metals. (A preliminary report.) *Ibid.* 39.—The paper discusses the origin and chem. nature of bitumens. The formation of "pyrrole red" from the reaction of K-chloroform with pyrrole is a dependable reaction for pyrrole compds. Through *Khim. Referat. Zhur.* 1940, No. 7, 17-18, 64.

W. R. Henn

RUZHELSKYA, N. P. Cand. Chem. Sci.

Dissertation: "Investigation of Pyrrole Compounds in Bituminous Fuels." Inst of Mineral Fuels, Acad Sci USSR, 29 May 47.

SO: Vechernyaya Moskva, May, 1947 (Project #17836)

KUZNETSOVA, N.P.; KUPALOV-YAROPOLK, I.K.

Interpretation of seismic data in the Ural-Emba petroleum-bearing region. Razved.i prom.geofiz. no.13:16-27 '55. (MLRA 9:7)
(Ural Valley--Prospecting--Geophysical methods) (Emba Valley--Prospecting--Geophysical methods)

KUZ'NETSOVA, N.P.

PRIKHOT'KO, A.F.

24(7) p3 PHASE I BOOK EXPLOITATION SOV/1365

L'vov. Universytet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies printed. (Series: Its: Fizychnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Gazer, S.L.; Tech. Ed.: Saranyuk, T.V.; Editorial Board: Lavistera, G.S., Academician (Resp. Ed., Deceased), Neporent, B.S., Doctor of Physical and Mathematical Sciences, Fabelinskiy, I.L., Doctor of Physical and Mathematical Sciences, Fabrikant, V.A., Doctor of Physical and Mathematical Sciences, Kornitskiy, V.G., Candidate of Technical Sciences, Raykiy, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K., Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S., Candidate of Physical and Mathematical Sciences, and Glauberman, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Card 17/30

LEVENSON, Viktor Emanuilovich; KUZNETSOVA, Nina Pavlovna; MAKSIMOVA, Serafima Nikolayevna; GAL'PERN, G.D., doktor khim.nauk, otv.red.; KOTLYAREVSKAYA, P.S., red.izd-va; RYLINA, Yu.V., tekhn.red.

[Some problems in the geochemical history of bituminous minerals of the Volga Valley in Kuybyshev Province] Nekotorye problemy geokhimicheskoi istorii bituminoznykh iskopaemykh Kuibyshevskogo Povolzh'ia. Moskva, Izd-vo Akad.nauk SSSR, 1958. 62 p. (MIRA 11:12)
(Kuybyshev Province--Bituminous materials)

KUZNETSOVA, N.P.; KAZARINOVA, V.P.

Geophysical prospecting in studying regional geological structure of the West Siberian Plain. Geol. nefti 2 no.4:11-16 Ap '58. (MIRA 11:5)

1. Novosibirskiy geofizicheskiy trest.
(West Siberian Plain--Prospecting--Geophysical methods)

LEVENSON, Viktor Emanuilovich; KUZNETSOVA, Nina Pavlovna; MAKSIMOVA, Serafima Nikolayevna; GAL'PERN, G.D., doktor khim.nauk, otv. red.; KOTLYAREVSKAYA, P.S., red.izd-va; SIMKINA, O.S., tekhn.red.

[Bituminology of the Paleozoic of Tatarstan and Bashkiria] K bituminologii paleozoia Tatarii i Bashkirii. Moskva, Izd-vo Akad.nauk SSSR, 1959. 87 p. (MIRA 13:1)
(Tatar A.S.S.R.--Petroleum geology)
(Bashkiria--Petroleum geology)

RAVICH, G.B.; VOL'NOVA, V.A.; KUZNETSOVA, N.P.

Separation of organic substances from systems and methods of determining their purity. Itogi nauki: Khim.nauki 4: 219-236 '59. (MIRA 13:4)
(Chemistry, Analytical) (Hydrocarbons)

SLOTVINSKIY-SIDAK, N.P., kand.tekhn.nauk; Prinimali uchastiye: POTAPOV, V.I., inzh.; KUZNETSOVA, N.P., inzh.

Vanadium recovery directly from iron-vanadium (titanium-magnetite) concentrates. Stal' 22 no.1:9-13 Ja '62. (MIRA 14:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Vanadium) (Hydrometallurgy)

KUZNETSOVA, N.P.

AUTHOR: LIN SONOV, G.B., KUZNETSOVA, N.P. 20-3-43/62

TITLE: The Mechanism Underlying the Sorption of Dipolar Ions by Ionites. (Mekhanizm sorbtsii dipolyarnykh ionov ioni'ami -Russian)

PERIODICAL: Doklady Akad.Nauk SSSSR,1957,Vol 113,Nr 2,pp 351-353 (U.S.S.R.)

ABSTRACT: Dipolar ions (amino acids,polypeptides,proteins in solutions of a certain acid degree) carry positive and negative charges at the same time.This property must influence the process of its sorption by ionites which is based on electrostatic interaction of the ions with ionite.In the case of a sorption of dipolar ions,in contrast to a sorption of ions with charges of same sigh,electrostatic repulsion must manifest itself beside electrostatic attraction.This fact was disregarded hitherto.Even in most important papers the current conceptions on the sorption mechanism were used without taking into account the peculiarity of dipolar ions.The authors succeeded in proving by their investigations that the sorption of dipolar ions takes place according to laws essentially different from those governing the sorption of ions with one andthe same sign.The tests were performed in amino acids.First the equivalence of exchange was studied: glycine,alanine and leucine were sorbed on sulfor resin SDV-3 (in K-form) under dynamic conditions.The exchange was also studied in the inverse process namely in the case of a displacement of amino acids by a solution of 0,01 N HCL.As may be seen from ill.1, there exists a complete equivalence between the quantity of hydrogen and the quantity of displaced alanine ions. It has to be stated that the hydrogen ion does not enter the solution,but jumps over to the negative-charged end of the

Card 1/3

The Mechanism Underlying the Sorption of Dipolar Ions 20-2-43/62
by Ionites.

dipolar ion.Thereby the dipolar ion is converted to a cation and is sorbed without electrostatic inhibition.A system is also proposed for the inverse process.The amino acid here exists in form of a cation since the solution possesses considerable acidity.In this connection it is essential that the equivalence concerns only the process in question here.The portion of alanine transformed to a dipolar ion shall not be taken into account here.The neutralization of the carboxyl group of the dipolar ion can take two directions: 1. Sorption of dipolar ions under great difficulties on the sodium form of the resin due to competition between electrostatic attraction and repulsion.The results confirm that. 2. The action of the carboxyl group is weakened by acetone as solvent,since the carboxyl group of amino acids is not dissociated here. Tab.2 summarizes the results of the determination of the sorption capacity of glycine and alanine by the carboxyl resin KFU and sulfor resin SNF (both resins in a sodium form) from a 0,01 N- amino acid solution in 75% acetone and water.From the water solution the amino acid is very insignificantly sorbed.On transition to a water-acetone solution the sorption capacity considerably increases. In the case of a greater distance between amino and carboxyl groups the influence of carboxyl is weakend,as it was confirmed on glycine,dipeptide and tripeptide.The results give rise to the problem of a revision of the entire system of interpretation of peptide- and protein-sorption processes of amino acids.

Card 2/3

The Mechanism Underlying the Sorption of Dipolar Ions by Ionites. 20-2-43/62

They open up new possibilities of a selective separation of dipolar ions from all others (e.g. by employment of two filters with resins in salt and hydrogen form). A great number of varieties can be proposed together with the method of a selective sorption of dipolar ions.
(2 illustrations, 2 tables)

ASSOCIATION Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR

PRESENTED BY REBINDER P.A., Member of the Academy, Feb 6, 1957
SUBMITTED
AVAILABLE Library of Congress

Card 3/3

AUTHORS: Samsonov, G.V., Kuznetsova, N.P. [redacted] 69-58-2 -14/23

TITLE: The Isotherm of Amino Acids Sorption on Hydrogen Forms of Ion Exchange Resins (Uravneniye izotermy sorbtsii amino-kislot na vodorodnykh formakh ionoobmennykh smol)

PERIODICAL: Kolloidnyy zhurnal, 1958, Vol XX, Nr 2, pp 209-213 (USSR)

ABSTRACT: The exchange of dipolar amino acid ions with other ions and especially with hydrogen ions led to the conclusion that dipolar ions can be adsorbed in considerable quantities only if they are transformed into cations. An ion exchange which is different from the exchange of metal ions needs another exchange equation. In this article, a thermodynamic derivation of this equation for amino acids with hydrogen ions on sulforesins is given. The equation has been verified for the system alanine-hydrogen on the sulforesin SDV-3. Figure 1 shows that the sorption process of alanine in the hydrogen form of the resin SDV-3 is subjected to the mentioned equation. The increase of alanine in the concentration leads to an increase of the quality of adsorbed alanine (figure 3). An increase of the concentration increases the limit quantity of the adsorbed alanine to 4.1 mg/g. The cations of the amino acid alanine are adsorbed

Card 1/2

69-58-2 -14/23

The Isotherm of Amino Acids Sorption on Hydrogen Forms of Ion Exchange Resins

with a very low degree of selectivity.
There are 3 graphs and 3 references, 2 of which are Soviet, and 1 English.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR, Leningrad (Institute of High-Molecular Compounds of the USSR Academy of Sciences, Leningrad)

SUBMITTED: January 12, 1957

1. Ions--Exchange 2. Amino acids--Ions--Applications
3. Hydrogen--Ions--Applications 4. Alanine--Adsorption

Card 2/2

5(4) SOV/69-21-4-16/22

AUTHOR: Samsonov, G.V., Boltaks, Yu.B., Kuznetsova, N.P., Bashkovich, A.P., Ponomareva, R.B.

TITLE: Sorption of Ions by Carboxyl Resins in the Hydrogen Form

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 4, pp 471-475 (USSR)

ABSTRACT: This study is devoted to the problem of slow sorption of cations in aqueous solutions by carboxyl resins in the hydrogen form. The authors' experiments considered two assumptions concerning the nature of this phenomenon. The first of these explains the phenomenon with the slow diffusion of desorbed hydrogen ions from the ionite grains into the solution. The second assumption considers the slow rate of diffusion of streptomycin into the grains of the carboxyl cationite in the hydrogen form as the most delayed stage of the process. In order to verify the second assumption, the authors studied the sorption of streptomycin on two samples of carboxyl resin KMT, synthesized by A.A. Vansheydt, A.V. Okhrimenko and A.V. Tunik. The results of the experiments (table 1) fully exclude the possibility to explain

Card 1/3

SOV/69-21-4-16/22

Sorption of Ions by Carboxyl Resins in the Hydrogen Form

the slow sorption of cations by little porosity of resins of the mentioned type or by difficulties for streptomycin ions to diffuse into the resin grains. The first assumption was largely confirmed by the experiments. Figure 2 (graph) shows a nearly perfect coincidence of the curves of sorption of streptomycin and sodium by the carboxyl cationite KB 4 P-2 in hydrogen form from solutions of equal concentrations. The sorption process developed in the presence of an OH-anionite. Table 2 shows an increase of the sorption capacity of KMT resin for streptomycin cations in buffer (pH 4-6) and Na_2SO_4 solutions. Table 3 shows the sorption capacity of carboxyl resins in hydrogen and sodium form for several albumins. The data proves that on the whole carboxyl resins in hydrogen form absorb albumins better than the same carboxyl resins in sodium form. The results of the experiments can be summarized as follows. The low sorption capacity of carboxyl resins in the hydrogen form for cations is determined by the low rate of diffusion of hydrogen ions from the

Card 2/3

SOV/69-21-4-16/22

Sorption of Ions by Carboxyl Resins in the Hydrogen Form

ionite grain into the solution. The characteristics of the sorption of cations by carboxyl resins can be observed during the sorption of metal ions as well as during the sorption of ions of larger size. Bipolar ions can be absorbed by carboxyl resins in hydrogen form, as there is no passing of hydrogen ions into solution during this process (details concerning bipolar ion sorption on page 474). There are 3 graphs, 3 tables and 5 references, 4 of which are Soviet and 1 English.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy AN SSSR, Leningrad (Institute of High-Molecular Compounds of the AS USSR), Leningrad)

SUBMITTED: 8 April, 1958

Card 3/3

SAMSONOV, G.V.; GLIKINA, M.V.; PONOMAREVA, R.B.; YURCHENKO, V.S.; GUDKIN, L.R.; KUZNETSOVA, N.P.; DMITRENKO, L.V.; ZAYTSEVA, A.D.

Transformations of polypeptides and synthesis of the peptide bond on ion exchange resins. Biokhimiia 25 no.5:964-973 S-O '60. (MIRA 14:1)

1. Institute of High Polymer Compounds, Academy of Sciences of the U.S.S.R., Leningrad.
(ION EXCHANGE) (PEPTIDES)

SAMSONOV, G.V.; KUZNETSOVA, N.P.; PONOMAREVA, R.B.; PIROGOV, V.S.; SELEZNEVA, A.A.; VAN-L-GUAN [Wang L-kuang]

Additional sorption interaction in the absorption by ion exchange resing of organic substances containing peptide and amides groupings. Zhur.fiz.khim. 37 no.2:280-283 F '63. (MIRA 16:5)

(Penicillin) (Ion exchange resins) (Sorption)

SAMSONOV, G.V.; KUZNETSOVA, N.P.; MOSKVICHEV, B.V.

Change in thermodynamic functions during the sorption of amino acids by sulfo resins in hydrogen form. Izv. AN SSSR. Ser.khim. no.3: 578-580 Mr '64. (MIRA 17:4)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

VIKIFINA, Z.I.; KUZNETSOVA, N.P.

Preliminary results of the study of enzymatic activity of brown alpine forest soils in the Sikhote-Alin Preserve. Sbornik DVFAN SSSR no.19:97-101 '63. (MIRA 17:9)

1. Biologo-pochvennyy institut dal'nevostochnogo filiala Sibirskogo otdeleniya AN SSSR i Dal'nevostochnyy gosudarstvennyy universitet.

VALUYEVA, T.K. [Valuieva, T.K.]; KUZNETSOVA, N.S.

Role of the spleen in the regulation of the protein composition of the blood serum. Fiziol. zhur. [Ukr.] 9 no.6:759-764 N-D '63. (MIRA 17:8)

1. Laboratoriya endokrinnykh funktsiy Instituta fiziologii im. Bogomol'tsa AN UkrSSR, Kiyev.

KUZNETSOVA, N. S.

"Methods of Decreasing the Reaction Induced by Roentgenotherapy of Third-Stage Cancer of the Larnyx." Cand Med Sci, Gor'kiy State Medical Inst imeni S. M. Kirov, Gor'kiy, 1955. (KL, No 11, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

KUZNETSOVA, N.S., kandidat meditsinskikh nauk

Three observations of abnormal lacation of the internal carotid artery in the pharynx. Vest.oto-rin. 18 no.5:120-121 S-O '56. (MLRA 9:11)

1. Iz oto-laringologicheskogo otdeleniya bol'nitsy imeni N.A. Semashko, Gor'kiy.

(ARTERIES, CAROTID, abnorm.
abnorm. location of internal carotid artery in pharynx)

KUZNETSOVA, N.S., kand.med.nauk

Roentgen therapy in pharyngomycosis. Vest.otorin. 21 no.5:48-49 S-O '59. (MIRA 13:1)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. A.A. Atkarskaya) Gor'kovskogo meditsinskogo instituta im. S.M. Kirova.
(PHARYNX, diseases)
(MYCOSIS, radiotherapy)

YAKHNINA, N.A.; KUZNETSOVA, N.S.

Significance of experimental keratoconjunctivitis in immunological studies on dysentery. Zhur.mikrobiol.epid. i immun. 30 no.2:98-102 F '59. (MIRA 12:3)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.
(KERATOCONJUNCTIVITIS, exper.
dysenterial, immunol. aspects (Rus))
(SHIGELLA, infect.
exper. keratoconjunctivities, immunol. aspects (Rus))

SOV/16-60-3-32/37

17(2,6)

AUTHORS: Yakhnina, N.A., Shatrov, I.I., Mordvinova, N.B., Kuznetsova, N.S., Shaposhnikova, R.P., Shul'man, E.A., Kazachina, K.N., Perova, L.V., Salamandra, E.G., Sinay, A.Ya., Sherishevskaya, Ye.F., Shabad, A.T., Golubeva, T.V.

TITLE: The Biological Properties of Shigella Dysenteriae, Isolated From Different Clinical Forms of Dysentery. Author's Summary.

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1960, Nr 3, pp 128 (USSR)

ABSTRACT: The authors made a study of various strains of Shig. dysenteriae isolated from patients with different clinical forms of dysentery, checking the strain's ability to cause experimental keratoconjunctivitis in guinea pigs, its virulence for mice and its sensitivity to antibiotics. No essential differences were found between the strains, which bears out the great part played by the state of the macroorganism in determining the nature of the clinical course in dysentery.

Card 1/2

SOV/16-60-3-32/37

The Biological Properties of Shigella Dysenteriae, Isolated From Different Clinical Forms of Dysentery. Author's Summary.

ASSOCIATION: Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR (Institute of Epidemiology and Microbiology imeni Gamaleya of the AMN, USSR); Moskovskaya gorodskaya i rayonnaya sanitarno-epidemiologicheskaya stantsiya (Moscow City and District Sanitary and Epidemiological Station).

SUBMITTED: December 24, 1958

Card 2/2

KUZNETSOVA, N.S., kand.med.nauk

Case of primary sarcoma of the uvula. Vest. otorin. 22 no.1: 90-91 Ja-F '60. (MIRA 14:5)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. A.A. Atkarskaya Gor'kovskogo meditsinskogo instituta imeni S.M.Kirova.
(UVULA—TUMORS)

KABANOVA, Ye.A.; MORDVINOVA, N.B.; KUZNETSOVA, N.S.; MINDLINA, R.S.; BOTVINNIKOVA, M.Ye.; MIKHAYLOVA, Yu.M.

Result of the use use of luminescent sera in the diagnosis of dysentery and colienteritis. Zhur.mikrobiol.epid.i immun. 31 30-35 N '60. (MIRA 14:6)

1. Iz Instituta epdiemiologii i mikrobiologii imeni Gamalei AMN SSSR, 12-y gorodskoy detskoy infektsionnoy bol'nitsy i I Moskovskogo meditsinskogo instituta.
(DYSENTERY) (ESCHERICHIA COLI) (SERUM)

BUROVA, T.V.; YAKHNINA, N.A.; SHATROV, I.I.; MORDVINOVA, N.B.; KUZNETSOVA, N.S.

Carriage of dysenterial bacilli by children. Pediatriia no.5:70-75 '61. (MIRA 14:5)

1. Iz otdela ostrykh detskikh infektsiy (zav. - prof. B.G. Shirvindt) Nauchno-issledovatel'skogo pediatricheskogo instituta Ministerstva zdravookhraneniya RSFSR (dir. - doktor med. nauk A.P Chernikova, sam. dir. po nauchnoy chasti - prof. N.R. Shastin) i otdela epidemiologii (zav. - prof. T.Ye. Boldyrev) Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR (dir. - prof. S.N. Muromtsev).
(DYSENTERY)

KUZNETSOVA, N.S., kand.med.nauk

Rare case of metastasis of a seminoma into the palatal tonsil. Vest.otorin. no.6:90-92 '61. (MIRA 15:1)

1. Iz kafedry ushnykh, nosovykh i gorlovykh bolezney (zav. - prof. A.A. Atkarskaya) Gor'kovskogo meditsinskogo instituta.
(TESTICLE--TUMORS) (TONSILS--TUMORS)

KUZNETSOVA, N.S., kand. med. nauk

Bilateral primary sarcoma of the palatine tonsils. Vestn. otorinolaring. 25 no.3:81-85 '63 (MIRA 17:1)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - dotsent V.A. Simolin) Gor'kovskogo meditsinskogo instituta imeni S.M. Kirova.

KUZNETSOVA, N.S., kand. med. nauk

Laryngeal plasmacytoma. Vest. oto-rin. 25 no.4:89-91 Jl-Ag '63. (MIRA 17:1)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - dotsent V.A. Simolin) Gor'kovskogo meditsinskogo instituta imeni S.M. Kirova.